of optical powers and whose optical power is controlled in part by an electrical signal applied to the electronic lens, (ii) an accommodation sensor configured to detect accommodation forces applied to the intra-ocular device via the lens capsule of the eye, and (iii) a controller operatively coupled to the electronic lens and the accommodation sensor and configured to apply an electronic signal to the electronic lens to control the optical power of the electronic lens based on the accommodation forces detected using the accommodation sensor. The intra-ocular device and elements thereof could be configured and/or operated as described herein. Further, the intra-ocular device could include additional components configured to provide some functionality. For example, the intra-ocular device could include a polymeric material that contains the electronic lens, accommodation sensor, and controller and that is configured to form a coupling between the lens capsule and the accommodation sensor and/or electronic lens, or some other components or combinations thereof.

[0107] The method **600** includes detecting accommodation forces applied to the intra-ocular device via the lens capsule of the eye (**602**) using the accommodation sensor. This could include measuring one or more properties of the accommodation sensor (e.g., a resistance, a capacitance, a voltage, an impedance, a breakdown voltage). Measuring the one or more properties of the accommodation sensor could include applying a specified current, voltage, electrical signal or waveform, or some other electrical stimulus to the accommodation sensor and measuring the response (e.g., a voltage, a current) of the accommodation sensor to the applied electrical stimulus. Detecting accommodation forces applied to the intra-ocular device via the lens capsule of the eye (**602**) could include performing some determination based on a measured property of the accommodation sensor (e.g., determining a value of an applied force based on a detected voltage, resistance, impedance, or other property of the accommodation sensor).

[0108] The method **600** further includes controlling the optical power of the electronic lens of the intra-ocular device based on the detected accommodation forces (**604**). In some examples, this could include applying an electrical signal having one or more properties determined based on the detected accommodation forces to the electronic lens. One or more properties of the electrical signal could be determined based on the detected accommodation forces using stored calibration data (e.g., stored in the data storage **454**). Such calibration data could include one or more values specifying a linear or nonlinear relationship between detected accommodation forces and properties of the electrical signal (e.g., a slope and an offset of a linear relationship, two or more parameters describing a polynomial of a nonlinear relationship). Such calibration data could include a lookup table specifying a plurality of properties of the electrical signal corresponding to a respectively plurality of detected accommodation force levels and/or ranges of levels. One or more properties of the electrical signal determined based on the detected accommodation forces could include an amplitude, a mean value, a frequency, a duty cycle, a waveform, or some other property or properties of the electrical signal.

[0109] The method **600** could include additional steps or elements in addition to those depicted in FIG. **6** (i.e., **602**, **604**). For example, the method **600** could include updating the stored calibration data. Such updating could be performed based on information received from an interface device or form some other device using an antenna, a light sensor, or some other element(s) of the intra-ocular device configured to act as part of a communications channel, or according to some other method. Additionally or alternatively, the intra-ocular device could determine updated calibration data through some other means (e.g., based on recorded detected accommodation forces and/or corresponding electrical signals applied to the electronic lens). In some examples, updated calibration data could be determined based on user indications (e.g., using user controls of an interface device) that an optical power of the electronic lens should be increased. Additionally or alternatively, detected accommodation forces and corresponding controlled properties of the lens-controlling electrical signal could be recorded and used to update the calibration data automatically. For example, the calibration data could be updated such that less accommodative 'effort' (i.e., a smaller applied accommodation force) is required to cause the electronic lens to increase/decrease its optical power by a particular amount.

[0110] The method **600** could include transmitting detected values of accommodation forces to an interface device or some other external system and used for some application. In some applications, such transmitted accommodation force information could be used as part of a human interface to a computer, e.g., to determine the distance from the user of an object the user is attempting to focus on. For example, such detected accommodation force information could be used to change a simulated focus and/or depth-of-field of a virtual scene presented to the user.

[0111] Other additional elements of the method **600** and/or alternative implementations of the listed elements of the method **600** are anticipated.

VI. CONCLUSION

[0112] Where example embodiments involve information related to a person or a device of a person, the embodiments should be understood to include privacy controls. Such privacy controls include, at least, anonymization of device identifiers, transparency and user controls, including functionality that would enable users to modify or delete information relating to the user's use of a product.

[0113] Further, in situations in where embodiments discussed herein collect personal information about users, or may make use of personal information, the users may be provided with an opportunity to control whether programs or features collect user information (e.g., information about a user's medical history, social network, social actions or activities, profession, a user's preferences, or a user's current location), or to control whether and/or how to receive content from the content server that may be more relevant to the user. In addition, certain data may be treated in one or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over how information is collected about the user and used by a content server.

[0114] The particular arrangements shown in the Figures should not be viewed as limiting. It should be understood that other embodiments may include more or less of each element shown in a given Figure. Further, some of the illustrated